

Curriculum Vitae
Michael D. Yao, MD

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Current Position Staff Clinician, Mucosal Immunity Section, Laboratory of Host Defenses
National Institute of Allergy and Infectious Diseases
National Institutes of Health
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Education

M.D., University of Maryland School of Medicine, Baltimore, MD 5/02
B.A., Northwestern University, Evanston, IL 6/98

Research Experience

Clinical/Translational Research Training 7/06-6/09
Mentor: Peter Mannon, M.D.
Laboratory of Host Defenses, National Institute of Allergy and Infectious Diseases
National Institutes of Health

Research Elective 12/02, 7/03, 7/04
Laboratory of Keith Wilson, M.D.
University of Maryland School of Medicine, Division of Gastroenterology
- Studied the role of polyamines in the regulation of immune cell apoptosis in the model of
Helicobacter Pylori induced chronic inflammation

Clinical Research Intern 7/99
Ramesh Khurana, M.D., Union Memorial Hospital, Department of Neurology

Research Assistant 7/93
Laboratory of Nelson Spruston, PhD, Northwestern University, Department of Neuroscience

Research Education

Introduction to the Principles and Practice of Clinical Research Completed 2/07
Ethical and Regulatory Aspects of Human Subjects Research Completed 11/06
NIH CC "Clinical Research Curriculum Certificate with Commendation" 6/08

Post Graduate Education and Training

Fellowship, Gastroenterology 7/05-6/09
University of Maryland Medical Center, Baltimore, MD
NIDDK, NIH, Bethesda, MD

Resident in Medicine 7/02-6/05
University of Maryland Medical Center, Baltimore, MD

Positions:

Clinical Instructor, Department of Medicine 2005-2008
University of Maryland School of Medicine

Staff Clinician, Laboratory of Host Defenses 2008-

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Licensure and Certification

ABIM Certified 8/23/2005

Board Certified Gastroenterology 11/18/08

Maryland State Medical License 10/21/08; Expires 9/30/13

Honors and Awards

Undergraduate: Cum Laude, Phi Beta Kappa, Golden Key Honor Society, Dean's List 1994-1998

Medical School: Honors in Anatomy, Physiology, Neuroscience, Subspecialty Surgery 1998-2002
Introduction to Clinical Practice

Post-graduate: American Gastroenterological Association Institute's "Investing in the Future:
Clinical Research in IBD" Young Investigator Award 2007

NIH Clinical Research Curriculum Certificate with Commendation 2008

National Institute of Allergy and Infectious Diseases Performance Award 2009

Leadership Positions

President of APAMSA (Asian-Pacific American Medical Student Association) 1999

Co-Founder of Northwestern Univ. chapter of Alpha Phi Omega Service Fraternity 1995-1998

Grant Awards

NIH "Bench-to-Bedside" Grant (\$70,000/year for two years):

"Mechanism of Response to Anti-TNF Therapy in Inflammatory Bowel Disease" 2010

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Publications:

Journal Articles:

1. Shulzhenko N, Morgun A, Hsiao W, Battle M, Yao M, Gavrilova O, Orandle M, Mayer, L, Macpherson A, McCoy KD, Fraser-Liggett CF, Matzinger P. Crosstalk between B lymphocytes, microbiota and the intestinal epithelium governs immunity versus metabolism in the gut. *Nature Medicine* 2011; 17:1585-93.
2. Dagur PK, Biancotto A, Wei L, Nida Sen H, Yao M, Strober W, Nussenblatt RB, Philip McCoy J Jr. MCAM-expressing CD4(+) T cells in peripheral blood secrete IL-17A and are significantly elevated in inflammatory autoimmune diseases. *J Autoimmun.* 2011; 37:319-27.
3. Imamichi H, Degray G, Dewar RL, Mannon P, Yao M, Chairez C, Sereti I, Kovacs JA. Lack of compartmentalization of HIV-1 quasispecies between the gut and peripheral blood compartments. *J Infect Dis* 2011; 204:309-14.
4. Ciccone EJ, Greenwald JH, Lee PI, Biancotto A, Read SW, Yao M, Hodge JN, Thompson WL, Kovacs SB, Chairez CL, Migueles SA, Kovacs JA, Margolis LB, Sereti I. CD4+ T cells, including Th17 and cycling subsets, are intact in the gut mucosa of HIV-1 infected long-term nonprogressors. *J Virol* 2011; 85:5880-8.
5. Read SW, Ciccone EJ, Mannon PJ, Yao MD, Chairez CL, Davey RT, Kovacs JA, Sereti I. The effect of intermittent IL-2 therapy on CD4 T cells in the guy in HIV-1-infected patients. *J Acquir Immune Def Syndr* 2011; 56:340-3.
6. Mannon PJ, Hornung RL, Yang Z, Yi C, Groden C, Friend J, Yao M, Strober W, Fuss IJ. Suppression of Inflammation in Ulcerative Colitis by Interferon-B-1a is accompanied by inhibition of IL-13 production. *Gut* 2011; 60:449-55.
7. Ciccone EJ, Read SE, Mannon PJ, Yao MD, Hodge JN, Dewar R, Chairez CL, Proschan MA, Kovacs JA, Sereti I. Cycling of Gut Mucosal CD4+ T Cells Decreases after Prolonged Anti-Retroviral Therapy and is Associated with Plasma LPS Levels. *Mucosal Immunology* 2010; 3:172-81.
8. Von Rosenvinge EC, Gopal L, Heller T, Kohn EC, Yao MD. Rectal Fistulae Resulting from Treatment with Sorafenib and Bevacizumab. *Gastrointestinal Endoscopy* 2009; 70:1246-7.
9. Yao MD, Von Rosenvinge EC, Groden C, Mannon P. Multiple Endoscopic Biopsies in Research Subjects: Safety Results from an NIH Series. *Gastrointestinal Endoscopy* 2009; 69:911-3.
10. Xu H, Chaturvedi R, Cheng Y, Bussiere FI, Asim M, Yao MD, Potosky D, Meltzer SJ, Rhee J, Kim S, Moss S, Hacker A, Wang Y, Casero RA, Wilson KT. Polyamine oxidation induced by *Helicobacter pylori* results in apoptosis and DNA damage: Implications for gastric carcinogenesis. *Cancer Research* 2004; 64:8521-8525.
11. Staff N, Jung H, Thiagarajan T, Yao M, Spruston N. Resting and active properties of pyramidal neurons in subiculum and CA1 of rat hippocampus. *Journal of Neurophysiology* 2000; 84:2398-2408.

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Abstracts:

1. Von Rosenvinge EC, Nobrega R, Quezado M, Yao MD. The Utility of Immunohistochemistry, Viral Culture, and Quantitative Polymerase Chain Reaction in the Diagnosis of Gastrointestinal Cytomegalovirus Infection: A Case Series. *Gastroenterology* 2009; 136:A-629. Poster Presentation, Digestive Disease Week, Chicago, 2009.
2. Yao MD, Von Rosenvinge EC, Groden C, Mannon P. Multiple Endoscopic Biopsies in Research Subjects: Safety Results from an NIH Series. *Gastrointestinal Endoscopy* 2008; 67:AB283. Poster Presentation, Digestive Disease Week, San Diego, 2008.
3. Mannon P, Fuss IJ, Groden C, Yang Z, Dickensheets H, Yi C, Friend J, Hornung RL, Donnelly R, Yao MD, Strober W. Interferon-Beta for Ulcerative Colitis: Clinical Remission Is Associated with Interleukin-13 Inhibition. *Gastroenterology* 2008; 134:W1231. Poster Presentation, Digestive Disease Week, San Diego, 2008
4. Yao MD, Ciccone E, Read S, Chairez C, Sereti I, Kovacs J, Mannon PJ. Endoscopic Appearance of Ileal Galt in HIV Infection is Independent of Mucosal CD4 Cell Levels and Measures of Viral Burden. *Gastroenterology* 2007; 132: M1116. Poster Presentation, Digestive Disease Week, Washington D.C., 2007.
5. Bussiere F, Chaturvedi R, Gainor J, Scholtz A, Fertel D, Yao M, Cheng Y, Xu H, Wilson K.T. Suppression of lymphocyte apoptosis at low levels of *H. pylori* infection. *Gastroenterology* 2004; 126: A404. Poster Presentation, Digestive Disease Week, New Orleans, LA 2004.
6. Chang Y, Chaturvedi R, Yao M, Potosky D, Xu H, Bussiere F, Wilson K. *H. pylori* urease induces macrophage apoptosis by c-myc mediated activation of ornithine decarboxylase. *Gastroenterology* 2004; 126:A108. Oral Presentation, Digestive Disease Week, New Orleans, LA 2004.
7. Khurana R, Yao M. Orthostatic intolerance with orthostatic hypertension: A Clinical and Autonomic Profile. *Neurology* 2000; 54: A161.